Biosketch

Daniel A. Jiménez is a full Professor in the Department of Computer Science and Engineering at Texas A&M University. He was previously Assistant and later Associate Professor in the Department of Computer Science at Rutgers University, and Professor and Chair of the Department of Computer Science at The University of Texas at San Antonio. Daniel received a doctorate in Computer Sciences from the University of Texas at Austin in 2002. His research interests are in the field of Computer Architecture, specifically in characterizing and exploiting the predictability of programs, cache management, compiler optimization, and low-level code-improving transformations. He pioneered the development of neural-inspired branch predictors, which have been implemented in microprocessors including AMD CPUs and the Oracle SPARC T4. As a consultant, Daniel designed the neural branch predictor for the Samsung Exynos M1 which is used in the popular Samsung Galaxy S7 mobile phone. Daniel is a member of the "IEEE Symposium on High Performance Computer Architecture (HPCA) Hall of Fame," has numerous publications in international peer-reviewed journals and conferences, and has participated in top conference numerous program committees. In 2005 and again in 2010 Daniel took sabbatical leaves at the Technical University of Catalonia (UPC) in Barcelona, Catalonia, Spain. He returned to Texas to take a position at UTSA and later Texas A&M University. He is a Senior Member of the IEEE, an ACM Distinguished Scientist, and an NSF CAREER award winner. He was General Chair of HPCA in 2011 and was Program Chair for HPCA in 2017.

Position Statement

The key to the future of computer architecture is diversity. As our community looks beyond the end of traditional microarchitectural scaling, we see many possible futures. The need for architectural solutions has increased as the applications of architecture have also diversified. The diversity of thought around architecture research presents a great opportunity for researchers at all levels, from students to the most senior among us; it is a great time to be in architecture! The role of TCCA in fostering participation in architecture research has never been more important. TCCA sponsors or co-sponsors top conferences where this research is strenuously peer-reviewed and presented. TCCA also facilitates a dialog between researchers and funding agencies. My goal as Chair of TCCA will be to maximize the effectiveness of these activities. We will need to push our conferences to embrace the diversity of ideas as well as continue to reward progress in core areas. We will need to be inclusive, inviting researchers from many fields into our community through, for example, keynote presentations and program committee memberships. Having recognized the value of diversity, I would like TCCA to help, wherever it can, in recruiting women and under-represented minorities into the computing research community. As General Chair of HPCA 2011, I became very familiar with the budgeting and planning of a major conference. Both as a General Chair and as an attendee, I have had some of the best experiences at TCCA-sponsored conferences, and I'm thankful for those opportunities. However, I do see room for improvement. Going forward, it's important to make sure the organizing committees of conferences have all the resources and knowledge they need to succeed. We need to make sure that no money is left on the table at our conferences. A conference that returns a surplus to IEEE has done a disservice to its attendees, and worse, to the potential student attendees who didn't come because they couldn't get a travel grant. Beyond event and publication costs, registration fees, corporate donations, and government grants should defray the costs of student participation in our conferences as much as possible. As TCCA Chair, I will encourage members of our community, especially those with good organizational skills, to host TCCA-sponsored conferences as General Chairs. I believe it is particularly important to recruit international General Chairs and conference venues, while keeping in mind that conference attendees have certain expectations about the conference experience. I will work with the Chairs to help them get the funding they need from industry and government, to keep registration fees reasonable, and to make sure no funds are left needlessly unspent. Government sponsored research is at the core of our community's funding model. I will work closely with program officers at government agencies to make sure our interests are taken into account. As a representative of our community my goal will be not to say which particular direction our research should take, but to encourage government agencies to fund high-quality research in any of the diverse emerging areas of architecture research, as well as the sub-disciplines traditionally associated with our community's activities. I believe the future of computer architecture research should be what you, the TCCA membership, decide it should be. As Chair of a Computer Science department, I learned a great deal about working with people. I learned that people are at their best when they are treated with respect and given the opportunity to meet high expectations. So, I am setting the expectations high for you, the TCCA membership: make the future of architecture research at least as exciting and adventurous as its history. When there is sufficient support, I want TCCA to fund new initiatives in architecture research. I want to hear what you think, and I want to help.